

GAS TURBINE PLANT FOR A WORKING MEDIUM IN THE FORM OF A CARBON DIOXIDE/WATER MIXTURE

Abstract

5 A gas turbine plant with a compressor, a combustion chamber, a turbine
and at least one heat sink is operated with a working medium in the form of a carbon
dioxide/water mixture. A hydrocarbon reacts as fuel with oxygen in the combustion
chamber, and the excess carbon dioxide and water thereby occurring is tapped from the
circuit. The compressor and the turbine have in each case a rotor with moving blades and
10 a casing with flow ducts and with guide blade cascades. In the compressor and/or the
turbine, matching to the expansion behavior of the working medium, which is different
from that of air, is brought about by modifications of the flow ducts, of the moving blades
and/or of the guide blade cascades.

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